

AMENDMENTS TO THE CLAIMS

The following listing of claims replaces all prior versions of claims in the application.

1-8. (Cancelled)

9. (Currently Amended): An implant ~~consisting of~~ comprising:

a bioadaptable porous material on which an adenoviral or retroviral vector carrying a gene encoding an osteo-inducible transcription factor Cbfa1 is adsorbed.

10. (Previously Presented): The implant according to claim 9, wherein the bioadaptable porous material is any member selected from the group consisting of hydroxyapatite, α -TCP, β -TCP, collagen, polylactic acid, hyaluronic acid, polyglycolic acid, and a complex of any thereof.

11. (Currently Amended): The implant according to claim ~~[[10]]~~ 9, wherein the bioadaptable porous material is a porous body consisting of a synthetic polymer composite synthesized from hydroxyapatite, β -TCP, or D, D-L, and L-polylactic acid.

12. (Currently Amended): The implant according to claim ~~[[11]]~~ 9, wherein the bioadaptable porous material is porous β -TCP.

13. (Cancelled)

14. (New) The implant according to claim 9, further comprising bone marrow derived cells.
15. (New) The implant according to claim 14, wherein the bone marrow derived cells are osteoblasts.
16. (New) The implant according to claim 14, wherein the bone marrow derived cells are isolated from an individual in need of said implant.
17. (New): An implant comprising:
 - a bioadaptable porous material on which an adenoviral or retroviral vector carrying a gene encoding an osteo-inducible transcription factor Cbfa1 is adsorbed,
 - wherein the bioadaptable porous material is any member selected from the group consisting of α -TCP, β -TCP, collagen, polylactic acid, hyaluronic acid, polyglycolic acid, and a complex of any thereof.
18. (New): The implant according to claim 17, wherein the bioadaptable porous material is any member selected from the group consisting of β -TCP, polylactic acid, and a complex of any thereof.

19. (New): The implant according to claim 17, wherein the bioadaptable porous material is a porous body consisting of a synthetic polymer composite synthesized from β -TCP, or D, D-L, and L-polylactic acid.

20. (New): The implant according to claim 17, wherein the bioadaptable porous material is porous β -TCP.

21. (New) The implant according to claim 17, further comprising bone marrow derived cells.

22. (New) The implant according to claim 21, wherein the bone marrow derived cells are osteoblasts.

23. (New) The implant according to claim 21, wherein the bone marrow derived cells are isolated from an individual in need of said implant.